

REMARKS

This Response is being filed in reply to the Final Office Action mailed on April 28, 2006. All objections and rejections are respectfully traversed. Claims 3-18 are pending in the application.

Claims 3-18 were rejected under 35 U.S.C. 102(e) as being anticipated by Muller et. al, U.S. Patent No. 5,273,905, issued on December 28, 1993 ("Muller"), and Copeland et. al, International Application WO 91/13335, published September 5, 1991. Those rejections are respectfully traversed and reconsideration is requested.

In brief, the present invention relates to a microscope slide stainer and method. An illustrative embodiment is described herein without limitation. Liquid is dropped from an orifice 5 of a liquid dispenser CP (as shown in Figure 1) into the cavity 512a of a slide housing 522 (as shown in Figure 6). The slide housing 522 and the orifice 5 are capable of relative movement between each other under microprocessor control so as to align the dispenser CP with the slide. *See* Figure 5; page 10, lines 12-15; page 13, lines 9-19. A liquid aspirator 544 is able to remove liquid from the cavity. *See* page 12, line 16 to page 13, line 8; Figure 11A.

The present claims are directed to a slide stainer and method in which liquid is dropped from an orifice of a liquid dispenser into the cavity of a slide housing. The claimed invention is exemplified by amended independent Claim 3. For convenience, that claim is reproduced here.

3. A microscope slide stainer comprising:
 - a slide housing into which at least one microscope slide is inserted, said housing having a cavity into which liquids are dispensed, the cavity containing a sufficient volume of liquid to cover the at least one microscope slide;
 - a liquid dispenser including an orifice from which liquid drops into the cavity, said dispenser orifice and slide housing being capable of relative movement between each other under microprocessor control so as to align the dispenser with a slide; and
 - a liquid aspirator, said aspirator being capable of removing liquid from the cavity.

As amended, independent Claim 3 of the claimed invention requires an “orifice and slide housing being capable of relative movement between each other under microprocessor control so as to align the dispenser with a slide.” Analogous method Claim 11 contains similar limitations. Claims 3 and 11 have been amended to avoid any misunderstanding of the claims in view of a recent decision Cytologix v. Ventana, Civ. No. 04-11783-RWZ (Memorandum of Decision, June 20, 2006), a copy of which is attached. With regards to the present invention, one skilled in the art will recognize that the housing and dispenser may be moved into alignment by moving the dispenser or by moving the housing, either case being covered by the present language.

The Present Invention Is Not Anticipated by Muller

A. The Present Application Claims Relative Movement Between A Dispenser Orifice And A Slide Housing; Muller Teaches A Dedicated Orifice Fixed To A Slide Housing

In the Final Office Action, the Examiner states that Muller teaches “microprocessor control of both the heating and movement of the sample to chambers of different volumes based upon desired analysis,” citing Column 4, line 4 and onward. As Applicants have indicated in a prior Response, the cited passage does not teach microprocessor control of movement of the either a slide housing or a dispensing orifice as claimed in the present invention. Rather, Muller discloses a system where slide processing modules are manually inserted into a system, whereby the “volumes of treating fluids” can be directed to each module through its own dedicated delivery conduit by control of a system of distribution valves.

With respect to the claims under consideration, Muller fails to disclose a “dispenser orifice and slide housing being capable of movement relative to each other under microprocessor control so as to align the dispenser with a slide.” However, there simply is no movement of either the slide housing or the dispenser orifice in Muller. Because the slides are inserted into stationary slide mounts (see Muller, Figs.2-9), and each slide mount has “its own delivery conduit,” it cannot be said that Muller teaches a dispenser orifice and slide housing being capable of movement relative to each other.” In Muller, fluids are transported via a series of fluid distribution valves to an orifice dedicated to each specific slide mount.

Unlike the present invention, the Muller reference relates to a system in which the samples are stationary. As shown in Figs. 1 and 21, Muller discloses a system of stationary slide mounts 144.1-144.3, each mount having its own delivery conduit 133, wherein each slide mount can receive fluids through the manipulation of distribution valves. The specification in Muller explicitly states: “Each subassembly module 141 has its respective reservoir 116 delivery conduits 133 connected to a different feed position of a 12-position valve 142.” Col. 37, lines 22-24. There is no indication in Muller that either a slide mount or its delivery conduit would be capable of movement, much less movement relative to one other. The movement claimed in the present application is *between the dispenser orifice and the slide housing*; in Muller, the orifice is fixed to the slide housing.

B. Muller Does Not Move The Dispensing Orifice To A Different Chamber Based On The Volume Required; Muller Changes The Volume Of The Chamber

The Examiner appears to read Muller as teaching a dispensing orifice that is “moved to a different chamber based upon the analysis and volume required.” Final Office Action, Page 2. Applicants respectfully disagree. As described in detail from Column 21, line 24 to Column 23, line 54 with respect to Figs. 4A-4C, the dispensing orifice in Muller remains stationary relative to the chamber, and the chamber volume is adjustable. In order to address the different volume requirements based on desired analysis, the chamber volume may be altered by adjusting the position of a “plate assembly 168 against [a] slide 40 to an extent sufficient to achieve a desired volume for the chamber.” (see Muller Col. 21, lines 39-41) In other words, Muller does not change the relative positions between the dispenser or the chamber, but rather changes the volume of the particular chamber. Therefore, the cited passage does not read on the claimed “. . . dispenser orifice and slide housing being capable of relative movement to each other under microprocessor control.”

C. Muller Teaches A Water Tight Seal That Is Created By Use Of A Gasket Between The Slide And Slide Housing, Not By Relative Movement Between The Dispenser Orifice And Slide Housing

Despite Applicants' earlier arguments, the Examiner maintains in his Final Office Action that "the dispenser orifice moves otop of each slide and creates a water tight seal," and that this teaches "relative movement between the dispenser orifice and the slide housing." However, Applicants respectfully request the Examiner reconsider the rejection. Muller explicitly teaches that a water tight seal is created by use of a gasket, not by movement of any dispenser orifice. (see Muller lines Col. 15, lines 25-37, and Fig. 9). As specifically stated at Col. 15, lines 29-31, the gasket maintains "a fluid tight seal between an interior portion 42 and adjacent portion of surface 39 of slide 41." In other words, the seal is created by applying compressive pressure between the slide and the gasket on the slide housing. At Col. 21, lines 24-45, Muller details the configuration of a slide housing. Nowhere in Muller is there mention or suggestion of the liquid dispenser orifice moving relative to that slide housing. As argued above, Muller specifically teaches each slide housing having its own stationary dedicated liquid dispenser orifice, thus teaching away from the Applicants' claimed invention.

D. The Claims of the Present Invention Focus On The Slide Housing And The Dispenser Orifice Having Relative Movement Under Microprocessor Control

Furthermore, the Examiners' characterization of the instant claims as requiring "only a relative movement between the slide and dispenser" is inaccurate. The claims specifically require the "[dispenser] orifice and slide housing being capable of relative movement between each other under microprocessor control." A manual insertion of a slide into a slide housing having a dedicated liquid dispenser does not teach the claimed invention requiring (1) the slide housing and the dispenser orifice being capable of relative movement or (2) relative movement under microprocessor control.

Therefore, Applicants submit that the rejection under 35 U.S.C. 102(e) is improper and Claims 3-18 are in condition for allowance.

The Present Invention Is Not Anticipated by Copeland

Independent Claim 3 of the claimed invention requires “a slide housing into which at least one microscope slide is inserted” and “a liquid aspirator, said aspirator being capable of removing liquid from the cavity.” Analogous method Claim 11 contains similar limitations reciting “inserting a slide into a slide housing” and “aspirating liquid from the cavity of said housing.”

Copeland does not include the claimed slide housing or the aspirator capable of aspirating liquid from a cavity over a microscope slide. Accordingly, the rejection under 35 U.S.C. 102 is not proper with respect to the present claims. Copeland teaches an automated slide stainer that does not have a slide housing, as the term is defined in the claims. Figure 1 of Copeland shows a carousel 24 into which slides are placed. The slide support carousel does not have a cavity with any walls positioned so as to limit the lateral spread of liquid off of the slide and thus contain a volume of the liquid. In fact, a housing with a wall, such as claimed in claims 3 and 11 of the present invention, is contrary to the teaching of Copeland. In order to rinse the slides, Copeland teaches a method whereby rinse fluid is applied to the slide surface, and the rinse fluid pours off the edge of the slide into a basin. Page 6, lines 4-18; Page 17, line 1 - Page 18, line 22, and Figs. 7-9. There is no mention in Copeland to the use of a liquid aspirator to remove liquid from a slide housing.

Thus, Copeland fails to teach both “a slide housing into which at least one microscope slide is inserted” and “a liquid aspirator, said aspirator being capable of removing liquid from the cavity” as claimed with respect to the present invention. Therefore, Applicants submit that the rejection under 35 U.S.C. 102(e) is improper and Claims 3-18 are in condition for allowance.

CONCLUSION

In view of the above amendments and remarks, it is believed that all claims are in condition for allowance, and it is respectfully requested that the application be passed to issue. If the Examiner feels that a telephone conference would expedite prosecution of this case, the Examiner is invited to call the undersigned.

Respectfully submitted,

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